

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of claims

1. (Currently amended) A method of conditioning a lignocellulosic substrate, the method comprising the steps of:

a) placing the substrate into a sealed pressure chamber;
b) subjecting the substrate to radio frequency (RF) energy in a constrained environment having a pressure above atmospheric and creating pressure above atmospheric in the sealed pressure chamber for a time sufficient to heat at least part of the moisture contained in the substrate to a temperature of or above the boiling point of water at ambient pressure; and

[[b]] c) releasing the reducing pressure in the sealed pressure chamber such that constrained environment in a manner causing the moisture within the substrate [[to]] boils and forces cellular debris to be ejected from the substrate, thereby creating voids and/or pathways in the substrate.

2. (Previously presented) A method as claimed in claim 1 wherein the RF energy is at a frequency between substantially 10 and substantially 100 MHz.

3. (Previously presented) A method as claimed in claim 2 wherein the RF energy is at a frequency between substantially 27 and substantially 40 MHz.

4. (Cancelled)

5. (Currently amended) A method as claimed in claim 1 [[4]] wherein the pressure is between substantially 0.5 psi and substantially 40 psi above atmospheric.

6. (Previously presented) A method as claimed in claim 5 wherein the pressure is between substantially 3 psi and substantially 30 psi above atmospheric.

7. (Previously presented) A method as claimed in claim 6 wherein the pressure is between substantially 6 psi and substantially 25 psi above atmospheric.

8. (Cancelled)

9. (Previously presented) A method as claimed in claim 1 wherein the temperature achieved within the substrate is between substantially 100 and substantially 130°C.

10. (Currently amended) A method as claimed in claim 1 wherein the pressure in the sealed pressure chamber ~~constrained environment~~ is ~~reduced~~ released in step c) by venting.

11. (Currently amended) A method as claimed in claim 1 wherein the pressure in the sealed pressure chamber is ~~reduced~~ released in step [[b]] c) by applying or producing a vacuum.

12. (Currently amended) A method as claimed in claim 1 wherein the pressure in the sealed pressure chamber is released ~~reduced~~ in step [[b]] c) by a combination of venting and applying or producing a vacuum.

13. (Cancelled)

14. (Previously presented) A method as claimed in claim 1 wherein the lignocellulosic substrate is wood.

15. (Previously presented) A method as claimed in claim 14 wherein the wood has a moisture content of more than substantially 60% based on dry weight of the wood.

16. (Previously presented) A method as claimed in claim 15 wherein the moisture content is greater than substantially 100% based on dry weight of the wood.

17. (Previously presented) A method as claimed in claim 14 wherein the wood has a moisture content of less than substantially 30% based on dry weight of the wood.

18. (Previously Presented) A method as claimed in claim 1 wherein the method further comprises the step of storing the substrate to allow the temperature and moisture in the substrate to equilibrate.

19. (Previously presented) A method as claimed in claim 1 wherein the lignocellulosic substrate is concurrently or subsequently impregnated with a composition.

20. (Original) A method as claimed in claim 19 wherein the composition is an aqueous solution that contains polar and/or non polar solvents, pesticidal or preservative components, and/or polymeric or pre-polymeric components.

21. (Previously Presented) A method as claimed in claim 19 wherein the composition contains a volatile pesticidal or preservative component, and/or pre-polymeric component.

22. (Currently amended) A conditioning method comprising at least the steps of:

- a) placing a lignocellulosic substrate into a sealed pressure chamber;
- b) subjecting [[a]] the lignocellulosic substrate to radio frequency (RF) energy in a constrained environment at a pressure above atmospheric and creating pressure above

atmospheric in the sealed pressure chamber for a time sufficient to heat at least part of the moisture contained in the substrate to a temperature below the boiling point of water at ambient pressure; and

[[b]] c) ~~reducing releasing the~~ pressure in the sealed pressure chamber ~~constrained environment~~ by applying or producing a vacuum ~~in a manner causing such that~~ the moisture within the substrate [[to]] boils and forces cellular debris to be ejected from the substrate, thereby creating voids and/or pathways in the substrate.

23. (Currently amended) A conditioning method comprising at least the steps of:

a) placing a lignocellulosic substrate into a sealed pressure chamber;

b) subjecting [[a]] the lignocellulosic substrate to radio frequency (RF) energy in a constrained environment having a pressure above atmospheric and creating pressure above atmospheric in the sealed pressure chamber for a time sufficient to heat at least part of the moisture contained in the substrate to a temperature of or above the boiling point of water at ambient pressure;

[[b]] c) incorporating into the void surrounding the substrate in the sealed pressure chamber ~~constrained environment~~, a composition which may impart sterilisation, preservative, or property modifying aspects; and

[[c]] d) ~~reducing releasing the~~ pressure in the sealed pressure chamber ~~constrained environment to allow such that~~ the moisture within the substrate [[to]] boils and forces cellular debris to be ejected from the substrate, thereby creating voids and/or pathways in the substrate.

24-30. (Cancelled)

31. (New) A method as claimed in claim 1 wherein the pressure in the sealed pressure chamber is created in step b) by actively supplementing the pressure.

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Page : 6 of 12

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32. (New) A method as claimed in claim 1 wherein the pressure in the sealed pressure chamber is created in step b) by a portion of the moisture contained in the substrate converting to steam.

33. (New) A method as claimed in claim 22 wherein the RF energy is at a frequency between substantially 10 and substantially 100 MHz.